

Desinger rabblings...

These are my deranged ramblings on the design process

More notes: old calibres, reliability accuracy etc:

I think most military rounds are FMJ (the geneva convention, or maybe the hague, says bullets must be full jacketed for military use) FID and blackhammer have FMJ as normal damage but SP is counted as D6 less.

FID and Blackhammer put .303s at 6D6+4. They have roughly the same muzzle energy as a 7.62 nato but have a larger cartridge and bullet. They also use aluminium or wooden tipped FMJ rounds rather than tyhe usual military FMJ. Blackhammer and FID give FMJ rounds partial AP in that they count SP as D6 less. They have copper and silvertip bullets as doing 1.25x damage at 1.5xSP. I put them together to be $([SP \times -D6] \times 1.5)$ and damage at $\times 1.25$. Or maybe just have SP and damage multiplied by 1.2 if u want simplicity.

The 30-06 US round is a similar story. I've left it at 6D6+4 but they could just as easily be just the same as 7.62NATO or maybe 6D6+3. Up to U.

Also accuracy and reliability have been taken to be standard for various types unless I've found particular statements pertaining to accuracy or reliability, e.g. revolvers and bolt actions are rel VR. Bolt action battle rifles tend to be +2 accuracy. I might have made them only +1 but they are definitely more accurate than the Garand, which was in itself pretty accurate and at least deserving of a +1 I think. The Lee Enfield sniper gets a +3 because they were specially selected for accuracy and then re tooled and monkeyed about with to make even better whereas as far as I can tell the Springfield was just a standard model with a sniper scope attached.

7.7mm arisaka is equivalent to 30-06 or .303.

.303 does 6D6+3 as does arisaka

Springfield does 6D6+4

6.5mm arisaka does 5d6

8mm nambu does 1d6+2

Jap grenades:

The damage and radius of the various grenades are not based on historical accounts so much as guesses from comments that the type 10 was underpowered. No indication of radius was given so to keep with CP/Interlock the standard 5/10m radius was used. It could be guessed that all grenades used a similar activation method and similar reliability to the type 97, but since this was not stated it's been left to discretion.

The british grenades are based on historical information (e.g. the radius of the Mills bomb). Having such a big radius is not good as you will probably hurt yourself, hence the reduced radius of the next british grenade design.

explosives:

**NB I use the Black-hammer unit/radius calculations, plus the stuff out of listen up except the extra range bands of shrapnel do 2D10 and 1D10 rather than 1D10 each. Damage is reduced by inverse proportion to the range band rather than halving damage each band. So an explosion with a Damage/radius multiplier of 5 would do 5x damage at the centre at range band 1, at band 2 it would do 4x damage, at 3 it would do 3 x damage, at 4 it would do 2x damage, at 5 it would do normal and then just shrapnel.

*****this next bit has basically been solved by the IU vehicle armour modifier business**

Panzerbusche:

*yeah, I know the damage for this doesn't balance with the penetration compared to the other anti tank weapons. It should have better penetration than .55 boys though but be less effective against flesh as it's effectively a high velocity Mauser round, which the current damage does. The thing is .55 boys is effectively a .50cal so to be right for flesh damage it has to have the damage it does too, otherwise it's going to be no better than standard battle rifle rounds.

The system is broken somewhere. I think basically HEAT weapons don't penetrate armour nearly well enough.

.55 cal note.

Given the relative armour piercing capabilities of other AT weapons it seems that a value of 6D10 for .50 cal is way too high, especially given RTGs value of 2.5mm of steel for 1 SP. Given this value, standard .50 cal could penetrate 150mm of armour and AP rounds could do double that. Maybe the 2.5mm/1SP is wrong. Even ignoring the 2.5mm thing they are still way off damage wise.

Perhaps it's just that HEAT weapons are much more effective against older types of armour, maybe reducing them by $\frac{2}{3}$ or $\frac{3}{4}$ rather than $\frac{1}{2}$. Otherwise the relative armour piercing capabilities of the PIAT, No68 grenade and .55 boys are way out of whack for the damage they would do in CP (compare to modern CP equivalents of the LAW vs PIAT- highest penetration {305 vs 100mm} yet low damage [both 4d10, maybe PIAT should be 3 or less and/or LAW raised], HEAT grenade vs No68 [5D10 and 2] still double the penetration {125mm vs 40mm} of a .50cal and .50 vs .55 [6D10 and 4 yet piss poor penetration {20mm} even using AP rounds)

Given that RGK3 (HEAT grenade) does 125mm pen IRL and game has the equivalent at 5D10 I would say that 4D10 for the PIAT (100mm) is about right, then 2D10 for the No68 is also about right.

This would mean the current LAW (300mm pen) should probably be around the 10D10 mark (which is what Edge of the sword had it as, close to what an HLAW in CP, almost an LATGM). Regarding the .50 cal maybe converting it to D6 (10D6) so that it would be halved against vehicle armour, explaining the poor penetration but still making it significantly more lethal against human targets?

Then what of the HLAW? Or RPG 29, that does 750mm and defeats reactive armour...similar to a HATGM (about 1000mm) at 18-20D10.

Cover art...I have put links to the cover art I selected to be in keeping with the Datafortress 2020 theme. However since I do not have the artists permission to use them I will not be putting the actual art on there for distribution, you will have to download it yourself.